

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Robert Crawford on April 8, 2008.

A new abstract is required on a separate page.

Also, it is recommended that a clean specification without reference to the "WO..." document on top of each page be provided and with paragraph headings for Brief Description of the Drawings, etc.

For the Claims:

1 Cancelled.

2. (Currently Amended) A low-pass filter [as claimed in claim 1,] comprising a large and a small capacitor which are connected in parallel, the large capacitor being connected in series with a resistor, characterized in that the filter is embodied on the basis of a semiconductor substrate with a first surface, in which the small and the large capacitor are each provided as a single vertical trench capacitor, the trenches extending to the first surface on which the resistor is provided and further characterized in that the semiconductor substrate further comprises a drift compensation part.

3. Cancelled.

4. (Currently Amended) A low-pass filter [as claimed in claim 1,] comprising a large and a small capacitor which are connected in parallel, the large capacitor being connected in series with a resistor, characterized in that the filter is embodied on the basis of a

semiconductor substrate with a first surface, in which the small and the large capacitor are each provided as a single vertical trench capacitor, the trenches extending to the first surface on which the resistor is provided and further characterized in that the small and the large capacitor are separated by a high-ohmic substrate zone with a resistance of at least $0.5 \text{ k } \Omega/\text{cm}$ wherein the high-ohmic substrate zone is situation to mitigate leakage.

5. (Original) A low-pass filter as claimed in claim[1] 2, characterized in that the trench capacitors have a dielectric comprising silicon nitride.
6. (Original) A low-pass filter as claimed in claim[1] 2, characterized in that the resistor comprises a layer of polysilicon, in which layer the upper electrodes of the capacitors are defined as well.
7. (Previously presented) A low-pass filter as claimed in claim[1] 2, characterized in that the semiconductor substrate further comprises diodes.
8. Cancelled.
9. (Currently Amended) An electronic device [as claimed in claim 8], comprising: a phase locked loop function including a comparator, a low-pass filter and a voltage controlled oscillator, the comparator and the oscillator being part of a single semiconductor device and the low-pass filter including a large and a small capacitor that are connected in parallel, the large capacitor being connected in series with a resistor, wherein the low-pass filter is embodied on the basis of a semiconductor substrate with a first surface, in which the small and the large capacitor are each provided as a single vertical trench capacitor, the trenches extending to the first surface on which the resistor is provided and the low-pass filter being assembled to the semiconductor device in a stacked die construction, and wherein the semiconductor device is provided with a first and an opposed second side, at which first side the low-pass filter is present and at

which second side the semiconductor device can be coupled to a heat sink.

10. (Currently Amended) An electronic device [as claimed in claim 8, characterized in that] comprising: a phase locked loop function including a comparator, a low-pass filter and a voltage controlled oscillator, the comparator and the oscillator being part of a single semiconductor device and the low-pass filter including a large and a small capacitor that are connected in parallel, the large capacitor being connected in series with a resistor, wherein the low-pass filter is embodied on the basis of a semiconductor substrate with a first surface, in which the small and the large capacitor are each provided as a single vertical trench capacitor, the trenches extending to the first surface on which the resistor is provided and the low-pass filter being assembled to the semiconductor device in a stacked die construction, and wherein the low-pass filter has lateral dimensions which are at most equal to those of the semiconductor device.

11. (Currently Amended) An electronic device [as claimed in claim 8, wherein] comprising: a phase locked loop function including a comparator, a low-pass filter and a voltage controlled oscillator, the comparator and the oscillator being part of a single semiconductor device and the low-pass filter including a large and a small capacitor that are connected in parallel, the large capacitor being connected in series with a resistor, wherein the low-pass filter is embodied on the basis of a semiconductor substrate with a first surface, in which the small and the large capacitor are each provided as a single vertical trench capacitor, the trenches extending to the first surface on which the resistor is provided and the low-pass filter being assembled to the semiconductor device in a stacked die construction, and the phase locked loop [is] being provided in an open loop architecture.

12. Cancelled.

13. (Previously presented) A low-pass filter comprising a large and a small capacitor which are connected in parallel, the large capacitor being connected in series with a

resistor, characterized in that the filter is embodied on the basis of a semiconductor substrate with a first surface, in which the small and the large capacitor are provided as vertical trench capacitors, the trenches extending to the first surface on which the resistor is provided, and characterized in that the small capacitor and the large capacitor are separated by a high-ohmic substrate zone with a resistance of at least $0.5 \text{ k } \Omega/\text{cm}$.

14. (Previously presented) A low-pass filter as claimed in claim 13, characterized in that the semiconductor substrate further includes a drift compensation part.

15. (Previously presented) A low-pass filter as claimed in claim 13, characterized in that one end of the filter is connected to ground.

16. (Previously presented) A low-pass filter as claimed in claim 13, characterized in that the trench capacitors have a dielectric that includes silicon nitride.

17. (Previously presented) A low-pass filter as claimed in claim 13, characterized in that the resistor includes a layer of polysilicon, and upper electrodes of the large and small capacitors are defined in the layer of polysilicon.

18. (Previously presented) A low-pass filter as claimed in claim 13, characterized in that the semiconductor substrate further includes diodes.

19. (Previously presented) A low-pass filter as claimed in claim 13, wherein a capacitance of the large capacitor is approximately ten times larger than a capacitance of the small capacitor.

The following is an examiner's statement of reasons for allowance:

The examiner discussed the application with applicant's representative and it was agreed that to advance prosecution of the claims, the incorporation of objected subject matter into independent claims, would be allowable over the prior art cited and that the applicant maintains the right to prosecute additional claims of similar scope to those filed in a continuing application as desired. With this amendment in addition to acknowledging a missed review of claims 13-19, which would have been indicated as allowable, as claim 13 contains language that was objected to in claim 4, this statement serves to clarify the issues pending.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

/Arnold Kinkad/

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